

REMARKS

Entry of the foregoing and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

Entry of the forgoing is appropriate pursuant to 37 C.F.R. §1.116 for at least the following reasons. First, the amendments address the new grounds of rejection under 35 U.S.C. §103, thereby reducing the number of issues present upon appeal. Second, the amendments clearly overcome the grounds of rejection

As correctly noted in the Office Action Summary, claims 2-12, 14, 15, and 17-22 were pending. By the present response, claims 14, 18, and 20-22 have been amended and claim 11 canceled. Thus, upon entry of the present response, claims 2-10, 12, 14, 15, and 17-22 remain pending and await further consideration on the merits.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: the original claims and the specification, paragraph [0026], [0033], and Figures 2A and 3C.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 2-12, 14, 15, and 17-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over WO 00/18583 to Trovinger et al. (hereafter "WO '583") in view of U.S. Patent No. 4,053,150 to Lane (hereafter "*Lane*") and U.S. Patent No. 4,304,561 to Shingo (hereafter "*Shingo*") on the grounds set forth in paragraph 1 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

The present invention is directed to folding sheet material. Figure 1A shows an exemplary embodiment of a sheet folding apparatus 100. The sheet folding apparatus 100 includes a fold blade 164 having a rounded folding surface 164b with a longitudinal axis along the x-axis of Figure 1A. Apparatus 100 also includes at least one fold roller. Figures 2A and 2B show exemplary embodiments of a rounded fold blade. At least in Figure 2A, the rounded fold blade has an adjustable perimeter. That is, the separate portions 266 can be moved relative to one another to expand the circumference of the rounded fold blade 264. Figures 3A-3C illustrate exemplary embodiments with two fold rollers 306, drive means 180 moves at least one of the fold blade and a fold roller into operable communication with one another. The fold roller then passes around and/or along the rounded folding surface. As shown in Figure 3C, and described in paragraph [0026] of the specification, the operation of the rounded fold blade and the fold rollers fold the sheet "to conform to the shape of the fold blade."

The above-noted features are broadly encompassed by independent claims 14 and 18. Claim 14 recites that a method for folding a sheet of material comprises the steps of, *inter alia*, feeding a sheet material into an area between a fold roller and a fold blade, moving the fold roller and the fold blade relative to one another to form a rounded fold in the sheet, wherein the longitudinal axis of the fold blade moves from a first position vertically below an axis of the fold rollers to a second position vertically above the axis of the fold rollers. The rounded fold conforms to a shape of the fold blade. Claim 18 recites that an apparatus for folding sheet material comprises, *inter alia*, a fold blade having a rounded folding surface, at least two fold rollers, and drive means for moving at least one of the fold blade and the plurality of

fold rollers into operable communication such that the major axis of the fold blade moves from a first position vertically below the major axis of the fold rollers to a second position vertically above the major axis of the fold rollers. At least one of a size and a shape of a rounded folding surface of the fold blade is adjustable.

The rejection based on the hypothetical combination of the disclosures in contained *Trovinger*, *Lane*, and *Shingo* is improper because the rejection does not establish a *prima facie* case of obviousness. There are three basic criteria to establish a *prima facie* case of obviousness. First, there must be a suggestion or motivation to modify the reference or to combine the teachings. Second, there must be a reasonable expectation of success for the proposed modification or combination. Third, the reference must teach or suggest all of the claim limitations. See, e.g., M.P.E.P. §§2143-2143.03. Here, the rejection has not established a *prima facie* case of obviousness because at least the third element, e.g., teaching or suggesting all of the claim limitations, has not been met.

Specifically, applicants' independent method claim recites that the rounded fold [placed in the sheet by moving the fold roller and the fold blade relative to one another], conforms to a shape of the fold blade. None of the cited references contain such disclosure. For example, *Trovinger* merely displays a conventional straight edge fold blade placed in a section of a fold roller which is moved along the length of the fold blade to place the fold in the sheet of paper. *Shingo* merely shows the use of a rounded turning surface along a conveyed path of a sheet of paper to place a fold in film material. There is no disclosure as to the formation of a rounded fold in *Shingo*. Finally, *Lane* merely teaches a blade moving path past fold rollers and does

not disclose, teach, or suggest the formation of a rounded fold conforming to a shape of the fold blade.

For at least the above-noted reasons, the rejection is improper with respect to claim 14 because the combination of cited references does not teach or suggest all of the claim limitations of applicants' claim 14.

With respect to claim 18 directed to an apparatus for folding sheet material, the rejection does not establish the *prima facie* of obviousness because at least the third requirement, that the references teach or suggest all of the claim limitations, has not been met.

Claim 18 recites that the apparatus includes at least one of a size and a shape of a rounded folding surface that is adjustable. None of the cited references disclose the use of a rounded folding surface with adjustable size or shape to place a rounded fold in a sheet material. Thus, the rejection as presented in the Official Action cannot establish obviousness over applicants' independent claim 14. For at least this reason, the rejection should be withdrawn.

From the above, applicants respectfully assert that none of the disclosure in *Trovinger, Lane or Shingo*, alone or in combination disclose, teach or suggest, applicants independent claims. Accordingly, withdrawal of the rejection is respectfully requested.

Applicants note that previously dependent claim 22 directed to a method wherein the rounded folding surface is adjustable has been rewritten in independent form. Accordingly, reconsideration of this claim in light of the comments above with respect to the combination of cited references is respectfully requested.

CONCLUSION

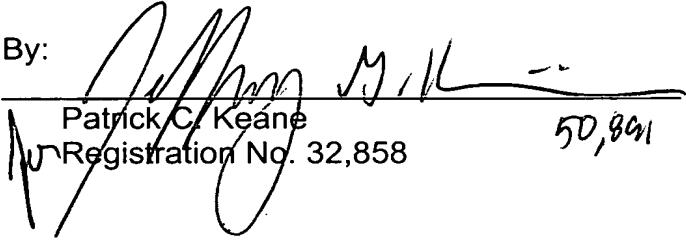
From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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